

REMARKS

Claims 23-26 are presented for consideration, with Claim 23 being independent.

In the Amendment After Final Rejection filed on May 10, 2010, the rejection of Claims 20-22 under 35 U.S.C. §103 in view of Furusawa was discussed. Differences between Furusawa and Claim 23 were also set forth.

It is submitted that the outstanding rejection of Claims 20-22 under 35 U.S.C. §103 is deemed to be moot in view of the cancellations of these claims. Furthermore, Claims 23-26 are submitted to be patentable over Furusawa.

In Claim 23 of Applicants' invention, the wiring forming method includes a first step of supplying a first liquid containing an insulating material on a substrate to form an insulated pattern on the substrate, with the first insulated pattern partially forming a first layer, and a second step of, after the first step, supplying a second liquid containing a conductive material on the surface to form a first conductive pattern, with the first conductive pattern partially forming a first layer. In addition, a third step, after the second step, applies the second liquid on the first conductive pattern to form a plurality of through hole portions on the first conductive pattern, with the plurality of through hole portions partially forming a second layer, a fourth step, after the third step, applies the first liquid on the first layer that the first insulated pattern and the first conductive pattern have formed to form a second insulated pattern as part of the second layer that the plurality of through hole portions partially formed, and a fifth step, after the fourth step, forms a part of the third layer by supplying the second liquid on the second layer so as to connect the plurality of through hole portions.

In accordance with Applicants' invention, a high performance wiring forming method is provided.

As discussed in the Amendment After Final Rejection, the patent to Furusawa relates to a multilayered wiring board that is formed using a liquid drop discharge system. With reference to Figures 1 to 3 and the specification in column 7, line 17, *et. seq.*, a first layer formed on a substrate 10, or board, is a conductive layer of conductive ink to form a wiring pattern 17 (see Figure 1(a)). In the next step, interlayer conductive posts 18 are formed for conducting a second layer through an interlayer insulation film (Figure 1(f)). Subsequently, an interlayer insulation film is formed by ink 21 (Figure 2(a)), next a wiring pattern 31 and interlayer conductive posts 32 are formed, and then another interlayer insulation film 33 is formed (Figures 3(a) and 3(b)).

The wiring board in Furusawa is formed in the opposite order of the wiring in Applicants' Claim 23. Specifically, in Applicants' claimed invention, an insulating pattern is formed in the first step and then a conductive pattern is formed. In Furusawa, on the other hand, the conductive pattern is formed before an insulated pattern, as discussed above. Such a distinction is acknowledged in the Advisory Action (box 3(d)) mailed May 20, 2010.

In its stated object, Furusawa provides a multilayer wiring board with a relatively simple production process, and towards that end Furusawa discloses forming the interlayer insulation film 21 after formation of the wiring pattern 17 and conducting posts 18. In this way, the interlayer insulation film can be formed after top surfaces of the conductive posts are exposed "with certainty" (see column 2, lines 40-43).

One advantage of Applicants' claimed wiring forming method is that by first forming an insulated pattern on the substrate, boundaries or edges can be formed to allow for a precise application of the second liquid containing a conductive material. In this way, a first conductive pattern can be precisely formed. By forming a wiring pattern and conductive posts before an interlayer insulation film, Furusawa simply would not achieve the same results of Applicants' invention, and by doing so Furusawa actually teaches away from the wiring forming method recited in Applicants' Claim 23. To take the position that one of these layers being "precisely applied" would inherently provide "precise placement" of the other, as stated in the Advisory Action, is wholly unsupported. The interlayer insulation film in Furusawa is formed after top surfaces of the conductive posts are exposed so that it can be formed "with certainty," as discussed above. And whether the first layer of wiring pattern is precisely formed or not, it is submitted that Furusawa's method is different and non-obvious from that set forth in Claim 23.

Accordingly, it is submitted that Applicants' invention as set forth in independent Claim 23 is patentable over the cited art. In addition, dependent Claims 24-26 set forth additional features of Applicants' invention. Independent consideration of the dependent claims is respectfully requested.

In view of the foregoing, reconsideration and allowance of this application is deemed to be in order and such action is respectfully requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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